



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/668,952      | 09/22/2000  | A. Ira Horden        | 042390.P3275        | 2770             |

7590 02/02/2005

Donna Jo Coningsby  
Blakely Sokoloff Taylor & Zafman LLP  
12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, CA 90025

|          |
|----------|
| EXAMINER |
|----------|

AUVE, GLENN ALLEN

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2111

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

09/668,952

Applicant(s)

HORDEN ET AL.

Examiner

Glenn A. Auve

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 38-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 38-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant should note that the examiner in charge of this application has changed. The new contact information is included at the end of this action.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 39,40, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 is rejected because it depends on canceled claim 14.

Claim 40 is rejected because it depends on claim 39.

Claim 43 is rejected based on lack of positive antecedent basis of "the instruction mix" on line 3.

### ***Reissue Applications***

4. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following:

The reissue declaration is improper because it must refer to all of the amendments made in the application since it was filed. The most recent declaration appears to be the one filed in February 2002, which only refers to the original application that became U.S. Pat. No. 5,812,860, not to the reissue application. See 37 CFR §1.175.

5. Claims 1-13 and 38-61 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

### ***Claim Objections***

6. Claims 7-13 and 38-61 are not in the proper format for a reissue. All changes made relative to the patent as it issued or was corrected by a Certificate of Correction must be indicated by underlining or bracketing throughout the prosecution of the reissue application. For example, all claims added by reissue should be underlined in their entirety at all times during prosecution of the application even if they were previously presented or are being amended. See 37 CFR §1.173(b)-(d) and (g). This deficiency was noted in the previous Office Action paragraph 2. Once again the claims are being examined in the interest of expediting prosecution, however future submissions not in the proper format will be treated as not *bona fide* responses.

7. Claims 7-13 and 38-61 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Pannu v. Storz Instruments Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001); *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of

Art Unit: 2111

35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

The test for determining whether recapture exists in a reissue application is a three step test set forth by the Court of Appeals for the Federal Circuit in *In re Clement*, 131 F.3d at 1464, 45 USPQ2d 1161 (Fed. Cir 1997) and restated in *Pannu v. Storz Instruments Inc.*, 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001). This test was slightly modified by the Board of Patent Appeals and Interferences in *Ex parte Eggert*, 67 USPQ2d 1716 (Bd. Pat. App. & Inter. 2003). See MPEP §1412.02 for a complete analysis of the applicable test for recapture. The three steps in the *Pannu* test are: 1) Was there broadening? 2) Does any broadening aspect of the reissue claim relate to surrendered subject matter? and 3) Were the reissue claims materially narrowed in other respects to compensate for the broadening in the area of surrender, and thus avoid the recapture rule?

With respect to the first step, applicant admits that this is a broadening reissue in the reissue declaration. As noted in the previous Office Action in paragraph 3, the newly added claims omit many limitations which are present in the patent claims. Therefore there is clearly broadening present and the first step of the test is affirmatively answered.

The second step requires a determination of whether the broadening aspect of the reissue claims relates to surrendered subject matter. In the prosecution of the original application (08/599,648), applicant canceled claims 1,3-7,9-11, and 15 in response to the Final Rejection (After Final Amendment and Response filed February 2, 1998, paper no. 5). In applicant's remarks in that paper it is noted that claim 8 was amended to include the limitations of claim 11 (which the examiner had indicated as allowable) along with the limitations of all

intervening claims (i.e. claims 9 and 10). Claim 14 was amended to include the limitations of claim 15 which the examiner had also indicated as being allowable. Claim 16 was amended to place it into independent form including the limitations from claim 14 from which it depended, as the examiner had also indicated that claim 16 would be allowable if rewritten in independent form including all the limitations of the base claim. These amendments were all made in response to the examiner's prior art rejection of claims 1,3-10, and 12-14 (claim 2 had already been canceled with its limitations incorporated into claim 1 by amendment). As noted in the previous Office Action, the currently pending new reissue claims omit the limitations relied upon to overcome the prior art rejection in the patent. Therefore the broadening aspect of the reissue claims relates to the surrendered subject matter in that the reissue claims omit the limitations relied upon to overcome the prior art rejection and the second step of the analysis is also answered affirmatively.

Progressing on to the third step of the test (Were the reissue claims materially narrowed in other respects to compensate for the broadening in the area of surrender, and thus avoid the recapture rule?), the claims will be analyzed individually. When analyzing a reissue claim for the possibility of impermissible recapture, there are two different types of analysis that must be performed. If the reissue claim "fails" *either* analysis, recapture exists.

First, the reissue claim must be compared to any claims canceled or amended during prosecution of the original application. It is impermissible recapture for a reissue claim to be as broad or broader in scope than any claim that was canceled or amended in the original prosecution to define over the art. Claim scope that was canceled or amended is deemed surrendered and therefore barred from reissue. *In re Clement, supra*.

Second, it must be determined whether the reissue claim entirely omits any limitation that was added/argued during the original prosecution to overcome an art rejection. Such an omission in a reissue claim, even if it includes other limitations making the reissue claim narrower than the patent claim in other aspects, is impermissible recapture. *Pannu v. Storz Instruments Inc., supra*. However, if the reissue claim recites a broader form of the key limitation added/argued during original prosecution to overcome an art rejection (and therefore not entirely removing that key limitation), then the reissue claim may not be rejected under the recapture doctrine. *Ex Parte Eggert*, 67 USPQ2d 1716 (Bd. Pat. App. & Inter. 2003) (precedential). For example, if the key limitation added to overcome an art rejection was "an orange peel," and the reissue claim instead recites "a citrus fruit peel", the reissue claim may not be rejected on recapture grounds.

Reissue claim 7 is similar to original claim 10 of the parent but it omits the clock signal generator and operating system limitations of claim 10 while specifying that the memory is a static RAM. Claim 10 was subject to a prior art rejection and applicant responded by incorporating together all of the limitations of claims 8-11. Therefore with respect to the first part of the analysis set forth above, claim 7 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 7 "fails" this part of the analysis, impermissible recapture exists. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claim 7 entirely omits the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 11 added to claims 8-10 in the original application. There do not appear to be any limitations in claim 7 which make it narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists. None of the dependent claims 8-11 include the limitations added

to overcome the prior art rejection either, and therefore impermissible recapture also exists with regard to them.

Reissue claim 12 is similar to original claim 14 in the parent except it omits the step of "dynamically changing the required frequency and the minimum supported voltage supplied responsive to a change in the current application mix." Therefore with regard to the first part of the analysis, claim 12 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 12 "fails" this part of the analysis, impermissible recapture exists. Claim 13 basically includes the omitted limitation noted above for claim 12, however, since this would make claim 13 at best of the same scope as the original claims which were canceled/amended to define over the prior art, impermissible recapture also exists with regard to claim 13. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 12 and 13 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 12 and 13 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Reissue claim 38 is similar to original claim 14 in the parent except it omits the steps related to determining and supplying the required frequency. Therefore with regard to the first part of the analysis, claim 38 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 38 "fails" this part of the analysis, impermissible recapture exists. Claims 39 and 40 have been rejected because they depend on claim 14 which was canceled. However, it appears that applicant meant for claim 39 to depend on claim 38. Therefore claims 39 and 40 will be treated here as though they did so depend. Claims 39 and 40 basically include the omitted limitation noted above for claim 38, however,

since this would make claims 39 and 40 at best of the same scope as the original claims which were canceled/amended to define over the prior art, impermissible recapture also exists with regard to claims 39 and 40. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 38-40 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 38-40 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Reissue claim 41 is also similar to original claim 14 in the parent except it omits the steps related to determining and supplying the required frequency. Therefore with regard to the first part of the analysis, claim 38 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 38 "fails" this part of the analysis, impermissible recapture exists. Claim 42 basically includes the omitted limitation noted above for claim 41, however, since this would make claim 42 at best of the same scope as the original claims which were canceled/amended to define over the prior art, impermissible recapture also exists with regard to claim 42. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 41 and 42 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 41 and 42 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Regarding dependent claims 43-45, however, they include limitations which were not present in the original claim 14, and therefore with respect to the first part of the analysis, these claims are of a somewhat narrower scope than the claims canceled or amended in the original

application, and these claims do not "fail" the first part of the analysis. However, with regard to the second part of the analysis, these claims also do not include the limitations added to claim 14 in order to overcome the prior art rejection. Claim 43 adds the limitation that the use of the instructions results in the computer executing the instruction mix at peak performance while claims 44 and 45 add limitations directed to the use of a static RAM which stores the instructions. None of these limitations are in any way related to the limitations added in order to overcome the art rejection in the original application and therefore impermissible recapture exists regarding claims 43-45.

Claim 46 is similar to claim 14 as it was presented after the amendment of September 29, 1997, however claim 46 omits the frequency determining steps and the dynamically changing the frequency and voltage steps. Therefore with regard to the first part of the analysis, claim 46 is broader in scope than a claim which was canceled or amended to define over the prior art. Since claim 46 "fails" this part of the analysis, impermissible recapture exists. Claims 47 and 48 include part of the omitted limitations noted above for claim 46, however, since this would make claims 47 and 48 at best of the same scope as the claim which was canceled/amended to define over the prior art, impermissible recapture also exists with regard to claims 47 and 48. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 46-48 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 46-48 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Claim 49 is similar to claim 8 of the original application but it omits the limitations directed to the clock generator and state machine. Therefore with respect to the first part of the

analysis set forth above, claim 49 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 49 "fails" this part of the analysis, impermissible recapture exists. Claims 50-52 include part of the omitted limitations noted above for claim 49, however, since this would make claims 50-52 at best of the same scope as the claim which was canceled/amended to define over the prior art, impermissible recapture also exists with regard to claims 50-52. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 49-52 entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 11 added to claims 8-10 in the original application. There do not appear to be any limitations in claims 49-52 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Claim 53 is similar to claim 14 as it was presented after the amendment of September 29, 1997, however claim 53 omits the frequency determining steps and the dynamically changing the frequency and voltage steps. Therefore with regard to the first part of the analysis, claim 53 is broader in scope than a claim which was canceled or amended to define over the prior art. Since claim 53 "fails" this part of the analysis, impermissible recapture exists. Claims 54 and 55 also do not include the omitted limitations noted above for claim 46, and therefore impermissible recapture also exists with regard to claims 54 and 55. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 53-55 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 53-55 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Claim 56 is similar to claim 14 as it was presented after the amendment of September 29, 1997, however claim 56 omits the dynamically changing the frequency and voltage step and the limitations of the claim directed to the pad ring and core voltages. Therefore with regard to the first part of the analysis, claim 56 is broader in scope than a claim which was canceled or amended to define over the prior art. Since claim 56 "fails" this part of the analysis, impermissible recapture exists. Claims 57 and 58 include part of the omitted limitations noted above for claim 56, however, since this would make claims 57 and 58 at best of the same scope as the claim which was canceled/amended to define over the prior art, impermissible recapture also exists with regard to claims 57 and 58. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 56-58 also entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 15 which were added to claim 14 in the original application. There do not appear to be any limitations in claims 56-58 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

Claim 59 is similar to claim 8 of the original application but it omits the limitations directed to the clock generator. Therefore with respect to the first part of the analysis set forth above, claim 59 is broader in scope than the original claims which were canceled/amended to define over the prior art. Since claim 59 "fails" this part of the analysis, impermissible recapture exists. Claims 60 and 61 also do not include the omitted limitations noted above for claim 59 and therefore impermissible recapture also exists with regard to claims 60 and 61. Even though it is not necessary to progress to the second part of the analysis, it is also noted that claims 59-61 entirely omit the limitations added in order to overcome the prior art rejection, i.e. the limitations of claim 11 added to claims 8-10 in the original application. There do not appear to be

any limitations in claims 59-61 which make them narrower in any other aspect, and therefore this part of the analysis also leads to the conclusion that impermissible recapture exists.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 12,13,38-43,56, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Beard (5,627,412).

a. As per claim 12, Beard teaches a dynamically switchable power supply for an electronic system based upon fluctuating demand for operational power (Abstract). Beard teaches determining a frequency at which the CPU can operate based upon the an applications demand; determines a voltage potential level corresponding to the frequency; and provides the frequency and voltage potential levels to the CPU (Fig. 1; col. 3, line 25 through col. 4, line 23).

b. As per claim 13, Beard discloses the claimed invention as described above and furthermore, Beard teaches changing the frequency and voltage level in response to a change in the application mix (col. 4, lines 1-23).

c. As per claim 38, Beard discloses the claimed invention as described above and furthermore, Beard teaches adjusting the voltage potential level based upon the application mix executed by the processor (col. 4, lines 1-23).

- d. Although claim 39 depends on claim 14 which was canceled, the art rejection is being applied as if it depended on claim 38. As per claim 39, Beard discloses the claimed invention as described above and furthermore, Beard teaches determining an operational frequency based upon the application mix executed by the processor (col. 4, lines 1-23).
- e. As per claim 40, Beard discloses the claimed invention as described above and furthermore, Beard teaches adjusting the operational frequency after adjusting the voltage potential level.
- f. As per claim 41, Beard teaches a dynamically switchable power supply for an electronic system based upon fluctuating demand for operational power (Abstract). Beard teaches adjusting a voltage potential level based upon an application mix in the CPU (Fig. 1; col. 3, line 25 through col. 4, line 23).
- g. As per claim 42, Beard discloses the claimed invention as described above and furthermore, Beard teaches determining an operational frequency based upon the application mix executed by the processor (col. 4, lines 1-23).
- h. As per claim 43, Beard discloses the claimed invention as described above and furthermore, Beard teaches executing the application mix at peak performance (Abstract; col. 4, lines 15-23).
- i. As per claim 56, Beard discloses a method comprising determining a frequency for an application mix and providing a voltage potential for the frequency (col.4 as noted above).
- j. As per claim 57, Beard discloses that providing a voltage potential includes providing a voltage potential to a core of a processor (col.4 as noted above).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7-11, 44,45,49-52, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard (5,627,412).

k. As per claims 7, 44,45,49,50, and 52, Beard teaches a dynamically switchable power supply for an electronic system based upon fluctuating demand for operational power (Abstract). Beard teaches providing at least two voltage potential levels (Fig. 1; col. 3, lines 8-24); and the CPU adjusts the voltage potential level depending upon the operational load of the CPU (col. 4, lines 1-23). However, Beard does not explicitly teach a static random access memory (SRAM) coupled to the processor. Official notice is taken in that both the concept and advantages of using a SRAM for storing instructions are well known and expected in the art of memories. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a SRAM in the system of Beard to provide a fast way to store data and retrieve the data as needed by the CPU.

l. As per claim 8, Beard discloses the claimed invention as described above and furthermore, Beard teaches providing an idle voltage potential level and a peak voltage level (col. 3, lines 8-24; col. 4, lines 1-23).

m. As per claims 9, 10, 51 and 59-61 Beard discloses the claimed invention as described above. However, Beard does not explicitly teach a state machine for controlling the voltages. Official notice is taken in that both the concept and advantages of a state machine (controller) for controlling voltages are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a state machine for controlling voltages in the system of Beard to perform the voltage control tasks outside the CPU to lessen the load of the CPU and save power required by the CPU for operation.

n. As per claim 11, Beard discloses the claimed invention as described above and furthermore, Beard teaches a clock signal generator to provide a clock signal of at least two frequencies (Fig. 1; col. 3, lines 45-62).

12. Claims 46-48 and 53-55, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fairbanks et al. (5,153,535) in view of Applicant's Admitted Prior Art (AAPA).

Fairbanks discloses a power supply system for use with a computer. Fairbanks also teaches the power system has incorporated the ability to vary the supply voltage based upon the magnitude of the current supplied to the computer. Furthermore, Fairbanks teaches a variable frequency clock circuit, in which the frequency is changed based upon the voltage supplied. The computer system will operate at low voltage and low speeds to proved the performance needed and thus, reducing the power consumption (Abstract). However, Fairbanks does not teach a processor with a processor core and a pad ring. Applicant's admitted prior art (AAPA) teaches that it is known for a processor to have a processor core and a pad ring (Specification page 1, lines 23-26; specification page 2, 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a

Art Unit: 2111

processor with a processor core and a pad ring as described in AAPA, as it is well known for the processor to be supplied with a voltage from power supply and voltage regulator and also to provide voltages required by each of the processor core and the pad ring.

13. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beard in view of AAPA.

As for claim 58, the argument above for claim 57 applies. Beard does not specifically mention that the processor has a core and a pad and that they are provided with different voltages. Applicant's admitted prior art (AAPA) teaches that it is known for a processor to have a processor core and a pad ring (Specification page 1, lines 23-26; specification page 2, 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a processor with a processor core and a pad ring as described in AAPA, as it is well known for the processor to be supplied with a voltage from power supply and voltage regulator and also to provide voltages required by each of the processor core and the pad ring.

### ***Response to Arguments***

14. Applicant's arguments filed 14 May 2004 with respect to the recapture rejection have been fully considered but they are not persuasive. With respect to the recapture rejection, applicant argues that the test for recapture is the one articulated in *Tee-Pak, Inc. v. St. Regis Paper Co.*, 181 USPQ 75 (6<sup>th</sup> Cir. 1974) and also points to the decision *In re Wadlinger*, 181 USPQ 826 (CCPA 1974). However, the proper test for determining recapture is the one set forth by the Court of Appeals for the Federal Circuit as noted above. See MPEP §1412.02. The

Art Unit: 2111

claims have been analyzed with respect to this test as outlined above. Therefore applicant's argument is not persuasive.

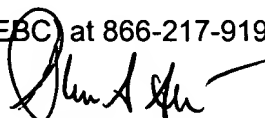
15. Applicant's arguments, see pages 3-4 , filed 14 May 2004, with respect to the Fung reference have been fully considered and are persuasive. Applicant's arguments with regard to the Fung reference (U.S. Patent Application Publication No. 2002/0007463) not being entitled to an effective filing date before applicant's effective date is persuasive and that rejection has been withdrawn. However a different art rejection has been applied as above.

### **Conclusion**

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn A. Auve whose telephone number is (571) 272-3623. The examiner can normally be reached on M-F 8:00 AM-5:30 PM, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Glenn A. Auve  
Primary Examiner  
Art Unit 2111

gaa  
January 31, 2005